

# CLAIMS

We claim:

1. A method of creating a subset of channels with programming from a plurality of channels, comprising the steps of:  
receiving a plurality of channels, wherein the plurality of channels comprises at least one channel with programming;  
encoding at least a portion of a predetermined number of channels from the plurality of channels to provide a corresponding encoded signal for each of the predetermined number of channels;  
processing each of the corresponding encoded signals to determine which of the predetermined number of channels contain programming to provide the subset of channels with programming; and  
storing the subset of channels into memory.

2. The method according to claim 1, further comprising the step of outputting channels exclusively corresponding to the subset of channels.

3. The method according to claim 1, further comprising the step of analyzing at least a portion of an audio signal in the predetermined channels to determine which of the predetermined number of channels contain programming.

4. The method according to claim 1, wherein each corresponding encoded signal is an MPEG video signal containing pictures selected from the group comprising intra pictures or non-intra pictures.

5. The method according to claim 4, wherein said processing step further comprises one or more of the steps selected from the group comprising:

counting a number of bits in at least one of the non-intra pictures in the MPEG video signal;

analyzing motion vectors in at least one of the non-intra pictures in the MPEG video signal;

analyzing discrete cosine coefficients of at least one of the intra pictures in the MPEG video signal; or

obtaining a sample picture from one or more of the plurality of channels containing no programming, storing information from the sample picture in memory, and comparing information from at least one of the intra pictures in the MPEG video signal with the stored information from the sample picture.

6. The method according to claim 1, wherein said encoding step further comprises the step of encoding at least a portion of each of the plurality of channels to provide the corresponding encoded signal for each of the plurality of channels.

7. The method according to claim 1, wherein the subset of channels comprises a plurality of channel indicators for identifying the channels in the subset of channels.

8. A method of creating a subset of channels with programming from a plurality of channels, comprising the steps of:

- receiving a plurality of channels, wherein the plurality of channels comprises at least one channel with programming;
- processing at least a portion of an audio signal in a predetermined number of channels from the plurality of channels to determine which of the predetermined number of channels contain programming to provide a program channel subset; and
- storing the program channel subset into memory.

9. The method according to claim 8, wherein the programming on the subset of channels contains video content.

10. A system for creating a subset of channel indicators for channels with programming from a plurality of channels, comprising:

- a receiver for receiving a plurality of channels, wherein the plurality of channels comprises at least one channel with programming;
- a video processor programmed to:
  - encode at least a portion of a predetermined number of channels from the plurality of channels to provide a corresponding encoded signal for each predetermined channel; and
  - process each encoded signal to determine which of the predetermined number of channels contain programming to provide the subset of channel indicators; and

12 memory for storing the subset of channel indicators.

1 11. The system according to claim 10, wherein the system presents  
2 channels corresponding only to the subset of channel indicators stored in memory.

1 12. The system according to claim 10, further comprising an audio  
2 detection circuit for analyzing at least a portion of an audio signal in the  
3 predetermined channels to determine which of the predetermined number of  
4 channels contain programming.

1 13. The system according to claim 10, wherein each encoded signal is an  
2 MPEG video signal containing pictures selected from the group comprising intra  
3 pictures or non-intra pictures.

1 14. The system according to claim 13, wherein the video processor is  
2 further programmed to perform one or more of the steps selected from the group  
3 comprising:  
4 counting a number of bits in at least one of the non-intra pictures in the  
5 MPEG video signal;  
6 analyzing motion vectors in at least one of the non-intra pictures in the MPEG  
7 video signal;  
8 analyzing discrete cosine coefficients of at least one of the intra pictures in the  
9 MPEG video signal; or

10 obtaining a sample picture from one or more of the plurality of channels  
 11 containing no programming, storing information from the sample picture in memory,  
 12 and comparing information from at least one of the intra pictures in the MPEG video  
 13 signal with the stored information from the sample picture.

1 15. The system according to claim 10, wherein the encoder encodes at  
 2 least a portion of each of the plurality of channels to provide a corresponding  
 3 encoded signal for each of the plurality of channels.

4 16. A system for creating a subset of channels with programming from a  
 5 plurality of channels, comprising:

6 a receiver for receiving a plurality of channels, wherein the plurality of  
 7 channels comprises at least one channel with programming including video and  
 8 audio;

9 an audio detection circuit for processing at least a portion of an audio signal in  
 10 a predetermined number of channels from the plurality of channels to determine  
 11 which of the predetermined number of channels contain programming to provide a  
 12 program channel subset containing at least audio and/or video; and  
 13 memory for storing the program channel subset.

1 17. The system according to claim 10, wherein the subset of channels  
 2 comprises a plurality of channel indicators for identifying the channels in the subset  
 3 of channels.